

Building a Healthy Economy: The Rise of Costa Rica's Export-Oriented Medical Device Industry

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Despite its relatively small size, Costa Rica has established itself as a major producer and exporter of medical devices on the global market. This executive briefing dives into the factors that propelled this growth over recent decades, exploring how Costa Rican exports have transitioned to encompass a wider range of increasingly sophisticated medical technology.

Development of Costa Rica's Medical Device Industry

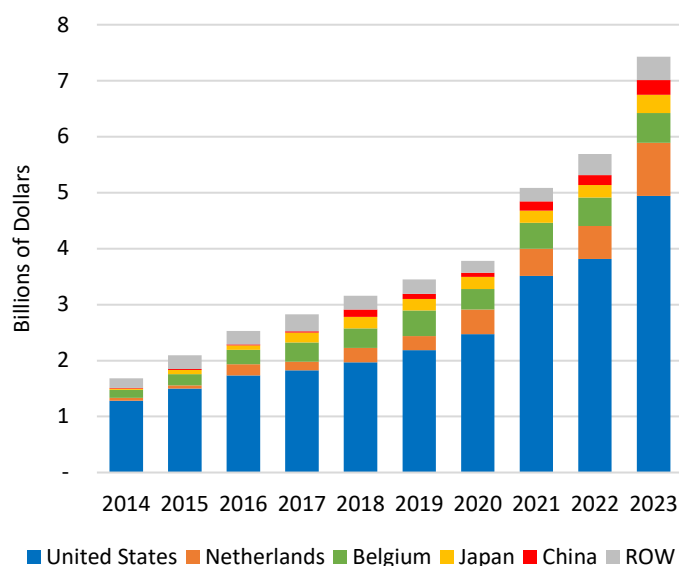
In the 1980s, Costa Rica began implementing an economic development strategy that focused on trade and FDI liberalization to strengthen its integration in global markets and upgrade its position in global value chains. Since then, Costa Rica has made significant strides toward these goals; it is the second most successful Latin American economy (after Mexico) in attracting FDI into high-tech manufacturing and has ratified trade agreements with key markets such as China, the European Union, Mexico, and the United States. Several factors contributed to the success of Costa Rica's development strategy, including the country's economic and political stability, geographic proximity to the United States, educated workforce, and free trade zone regime (which provides tax incentives and benefits to qualifying firms).

This environment supported the growth of Costa Rica's medical device industry, which experienced a feedback loop as the positive experiences of early investors prompted new market entrants. Each stage of investment built up the industry's capacity to produce medical device products with higher technological content. Costa Rica now boasts more than 80 firms operating in its medical devices industry, up from eight firms in 2000; these include prominent multinationals such as Abbott, Boston Scientific, Cooper Medical, Hologic, Medtronic, and Philips. More than half of the medical device firms with operations in Costa Rica are headquartered in the United States and less than a third are headquartered in Costa Rica.

Growing, Diversifying Exports

Costa Rica's exports of medical devices have grown each year over the last decade, reflecting the consistent development of the industry (figure 1).¹ Costa Rica's medical device exports increased by 342 percent during the 2014-23 period, rising from \$1.7 billion in 2014 to \$7.4 billion in 2023 – ranking as the ninth largest exporter of medical

Figure 1: Costa Rica's Medical Device Exports, 2014–23



Source: [S&P Global Market Intelligence](#) using the HS subheadings defined in [digest EL022](#) for medical goods, accessed February 2024

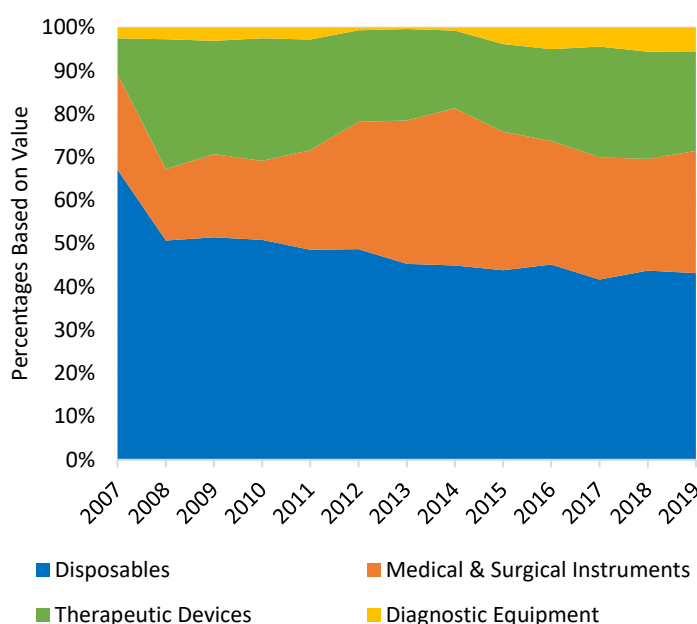
¹ Costa Rica's leading export category has historically been agricultural goods. However, that shifted in 2017, when medical devices surpassed agricultural goods to become the country's top export category.

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devices globally. The last few years in particular saw significant growth, with exports increasing by \$3.6 billion between 2020 and 2023, an amount higher than total exports in all prior years. The United States accounted for the largest share of Costa Rica’s medical device exports over this period; however, that share fell from 76.2 percent in 2014 to 66.5 percent in 2023 as Costa Rica expanded trade with other export markets including the Netherlands, Belgium, Japan, and China. This trend is expected to continue following recent announcements from the Costa Rican government that it intends to diversify its FDI strategy, citing the need to build resiliency due to Costa Rica’s high level of dependence on the U.S. market.²

As Costa Rica ramped up its exports of medical devices, the composition of those devices also diversified, reflecting greater shares of higher-tech medical devices. In the earlier stages of Costa Rica’s medical device industry development, it predominantly produced disposables. Within the context of the medical device global value chain, these are lower-tech, cost-driven products (e.g., catheters, tubing, and syringes). Costa Rica’s export data demonstrate that the country has scaled up production of medical devices with greater technological complexity (figure 2).³ While disposables still represent the largest share of Costa Rica’s medical device exports, there has been significant growth in exports of medical and surgical instruments, therapeutic devices, and diagnostic equipment.⁴ As a share of Costa Rica’s total medical device exports, disposables decreased from 67 to 43 percent during 2007-19. In contrast, medical and surgical instruments increased from 22 to 28 percent, therapeutic devices increased from 8 to 23 percent, and diagnostic equipment increased from 2 to 5 percent over the same period.

Figure 2: Composition of Costa Rica’s Medical Device Exports, 2007–19



Source: CINDE, “Life Sciences,” accessed February 2024

Sources: The Central American Group, “Costa Rican Medical Device Industry Overview,” accessed February 2024; CINDE, “Life Sciences,” accessed February 2024; Cordero and Paus, “Foreign Investment and Economic Development in Costa Rica,” April 2008; DOC, “Market Overview,” accessed February 2024; Gereffi et al., “Diverse Paths of Upgrading in High-Tech Manufacturing,” 2019; Hernández et al., “Global Value Chains and World Trade,” August 2014; Johnson, “Costa Rica and MedTech,” July 7, 2021; O’Farrell, “Costa Rica Shakes Up FDI Strategy,” December 12, 2023; PROCOMER, “Trade Agreements,” accessed February 2024; and S&P Global Market Intelligence, accessed February 2024.

² The United States is Costa Rica’s largest partner in terms of both trade and FDI. In 2022, the United States accounted for approximately 73 percent of Costa Rica’s inward FDI and 40 percent of Costa Rica’s total imports.

³ The most recent year for which these data are available is 2019; however, qualitative information suggests that the trend in the composition shift of Costa Rican medical device exports continued through 2023.

⁴ Examples of medical and surgical instruments include forceps, medical scissors, and dental drills; examples of therapeutic devices include hearing aids, pacemakers, and prosthetics; and examples of diagnostic equipment include infusion pumps, blood pressure monitors, and MRI equipment.

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